

WHAT IS CLAIMED IS:

- 1. A method for producing an ethylene-vinyl alcohol copolymer resin composition, said method comprising:
- (a) introducing into an extruder an ethylene-vinyl alcohol copolymer having a water content of at least 0.5 wt%;
- (b) further introducing into said extruder a liquid component comprising an aqueous solution of a resin, an aqueous dispersion of a resin, an aqueous dispersion of inorganic fine particles, or a mixture thereof;
- (c) subjecting said copolymer and said component to melt-kneading in said extruder; and
- (d) discharging the resulting ethylene-vinyl alcohol copolymer resin composition from the extruder.
- 2. The method according to claim 1, wherein the aqueous solution of a resin comprises a polyvinyl alcohol, an ethylene-vinyl alcohol copolymer, starch or a starch derivative, a cellulose derivative, a polyacrylic acid or a salt thereof, polyvinyl pyrrolidone, polyoxyethylene glycol, polyoxypropylene glycol, or a mixture thereof.
- 3. The method according to claim 1, wherein the aqueous dispersion of a resin comprises a polyvinyl acetate-based emulsion, a polyacrylic ester-based emulsion, a polyurethane-based emulsion, an ethylene-vinyl alcohol copolymer emulsion, a latex, or a mixture thereof.
- 4. The method according to claim 1, wherein the aqueous solution of a resin or the aqueous dispersion of a resin has a concentration of the resin component ranging from 0.5 weight % to 70 weight %.
- 5. The method according to claim 1, wherein the amount of the resin added per 100 weight parts of the ethylene-vinyl alcohol copolymer is in the range from 0.1 weight parts to 200 weight parts.
- 6. The method according to claim 1, wherein the aqueous dispersion of inorganic fine particles has a concentration of inorganic fine particles ranging from 0.1 weight % to 50 weight %.

Related Pending Application
Related Case Serial No: 10/050,928
Related Case Filing Date: 1-2203

The method according to claim 1, wherein the amount of inorganic 7. fine particles added per 100 weight parts of the ethylene-vinyl alcohol copolymer is in the range from 0.001 weight parts to 50 weight parts. The method according to claim 1, wherein the inorganic fine particles 8. are selected from inorganic layered compound particles, silicon oxide particles, and mixtures thereof. The method according to claim 1, wherein the ethylene-vinyl alcohol 9. copolymer has an ethylene content ranging from 3 mol% to 70 mol% and a saponification degree ranging from 80 mol% to 100 mol%. The method according to claim 1, wherein the ethylene-vinyl alcohol 10. copolymer contains water in the range from 0.5 weight % to 70 weight %. The method according to claim 1, wherein the resin composition 11. immediately after discharge from the extruder has a water content ranging from 5 weight % to 40 weight %. The method according to claim 1, wherein the water content of the 12. ethylene-vinyl alcohol copolymer in a melted state is adjusted in the extruder by feeding water to the extruder and/or removing water from the extruder. The method according to claim 1, wherein the temperature of the 13. ethylene-vinyl alcohol copolymer in the melted state is in the range from 70°C to 170°C. The method according to claim 1, wherein the ethylene-vinyl alcohol 14. copolymer resin is further kneaded in the extruder with at least one additive selected from a carboxylic acid, a boron compound, a phosphoric acid compound, an alkali metal salt and an alkaline earth metal salt. A method for producing ethylene-vinyl alcohol copolymer resin 15. composition pellets, wherein an ethylene-vinyl alcohol copolymer resin composition obtained according to a method as claimed in claim 1 is cut to form pellets and subsequently dried until the water content is reduced to 1 weight % or lower. 35

16. An ethylene-vinyl alcohol copolymer resin composition obtained by a method as claimed in claim 1.

ABSTRACT OF THE DISCLOSURE

5

10

A method for producing an ethylene-vinyl alcohol copolymer resin composition, said method comprising: (a) introducing into an extruder an ethylene-vinyl alcohol copolymer having a water content of at least 0.5 wt%; (b) further introducing into said extruder a liquid component comprising an aqueous solution of a resin, an aqueous dispersion of a resin, an aqueous dispersion of inorganic fine particles, or a mixture thereof; (c) subjecting said copolymer and said component to melt-kneading in said extruder; and (d) discharging the resulting ethylene-vinyl alcohol copolymer resin composition from the extruder. This method improves the dispersibility of a resin and/or inorganic fine particles in the EVOH while suppressing thermal deterioration of the EVOH.



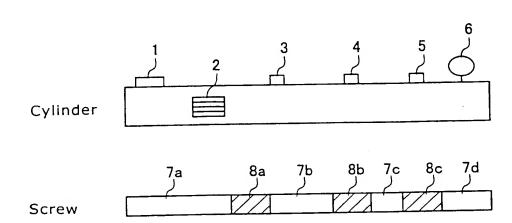


FIG.1